

Mobile SATA Spinpoint M7E



Capacity	160GB	250GB	320GB	500GB	640GB
Model	8 MB	HM161GI	HM251HI	HM321HI	HM501II

FEATURES

- Max. 320GB formatted capacity per disk
- Serial ATA 3.0Gbps Interface Support
- SATA Native Command Queuing Feature
- TuMR/PMR head with FOD technology
- Load/Unload Head Technology
- ATA Security Mode Feature Set
- ATA S.M.A.R.T. Feature Set
- SilentSeek™
- NoiseGuard™

DRIVE CONFIGURATION

Capacity ¹	160 / 250 / 320 / 500 / 640 GB
Interface	SATA 3.0Gbps
Buffer DRAM Size ²	8 MB
Byte per Sector	512
Rotational Speed	5,400 RPM Class

PERFORMANCE SPECIFICATIONS

Average Seek time (typical)	12 ms
Data Transfer Rate	
Media to/from Buffer (Max.)	138 MB/s
Buffer to/from Host (Max.)	300 MB/s
Drive Ready Time (typical) ³	4 sec

RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10^{14} bits
Controlled Ramp Load/Unload	600,000

ACOUSTICS

Idle (typical)	2.4 Bel
Performance Seek (typical)	2.6 Bel

POWER REQUIREMENTS

Voltage	+5V±5%
Spin-up Current (Max.)	1,000 mA
Seek (avg.) ⁴	2.5 W
Read/Write (avg.)	2.5 W
Low Power Idle (avg.)	0.85 W
Standby (avg.)	0.25 W
Sleep (avg.)	0.2 W

ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	5 ~ 55 °C
Non-operating	-40 ~ 70 °C
Humidity (non-condensing)	
Operating	5 ~ 90 %
Non-operating	5 ~ 95 %
Linear Shock (1/2 sine pulse)	
Operating(2ms) ⁵	400 G
Non-operating(1ms)	900 G
Vibration	
Operating(Random,10~500Hz)	1.5 Grms
Altitude (relative to sea level)	
Operating	-300 to 3,000 m
Non-operating	-400 to 15,000 m

PHYSICAL DIMENSION

Height	9.5 mm
Width	69.85 mm
Length	100 mm
Weight (max)	105 g

* Note : Design and specifications are subject to change without prior notice.

1.1MB = 1,000,000 Bytes, 1GB = 1,000,000,000 Bytes

Accessible capacity may vary as some OS uses binary numbering system
for reported capacity

2. A small portion of the 8MB buffer memory is reserved for firmware use

3. Power-On to Drive Ready

4. 30% duty cycle, random seek

5. On Track Read Operation

